

Amendments to the Claims:

The listing of claims below will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-26 (Canceled)

Claim 27 (Original) A method for the manufacture of implantable substrates for the healing and/or protection of connecting tissue, said substrate comprising:

a composition comprising biologically active factors (i), (ii), and (iii), wherein

- (i) is a growth and differentiating factor,
- (ii) is a chemotactic factor, and
- (iii) is a cellular adhesion molecule; and

at least one structure for cell invasion in vivo and/or for the formation of cell matrix and/or for the release of constituents of the employed composition, wherein said structure comprises at least one constituent (a) to (f):

- (a) a hydrogel,
- (b) a compound selected from the group consisting of sponges, collagen sponges,
- (c) a compound selected from the group consisting of wool, a cotton wool-like structure, wool made of polysaccharides, cellulose wool, and cellulose cotton wool,

(d) a compound selected from the group consisting of natural or synthetic polypeptides, fibrin, and polylysine,

(e) a compound selected from the group consisting of plaitings, knitted fabrics, woolen structures made of fibers, and fibers comprising resorbable polymers,

(f) a compound selected from the group consisting of cement pastes, acrylate cements, bonding sheets, and fibrinogen-covered hyaluronic acid foil,

comprising at least one of the following steps:

(i) bringing said structure into contact with at least said above defined composition

or

(ii) bringing said biologically active factors (i), (ii), and (iii) of said composition into contact with said above defined structure.

Claim 28 (Original) The method of claim 27, wherein said connecting tissue comprises cartilage.

Claim 29 (Original) The method according to claim 27, wherein the step of bringing said substrate into contact with said composition comprises bringing said structure into contact with at least one biologically active factor chosen from the group consisting of synthetic peptides, cytokines, and extra cellular matrix components.

Claim 30 (Original) The method of claim 29, characterized in that said connecting tissue comprises cartilage.

Claim 31 (Original) A method of healing and/or protection of connective tissue, comprising contacting said connective tissue with a substrate manufactured according to the method of claim 27.

Claim 32 (Original) A method of healing and/or protection of connective tissue, comprising contacting said connective tissue with a substrate manufactured according to the method of claim 29.

Claim 33 (Original) The method according to claim 31, wherein said connective tissue comprises cartilage, and the method further includes the step of producing connecting channels into the subchondral space of the cartilage before contacting said connective tissue with said substrate.

Claim 34 (Original) The method according to claim 32, wherein said connective tissue comprises cartilage, and the method further includes the step of producing connecting channels into the subchondral space of the cartilage before contacting said cartilage with said substrate.

Claim 35 (New) A method of producing implantable substrates for the healing and/or protection of connective tissue, the method comprising bringing a structure and one or more biologically active factors into contact, wherein

the at least one structure comprises one or more constituent(s) selected from the group consisting of: hydrogels; sponges; collagen sponges; wool; a cotton wool-like material; wool and/or cotton wool-like material made of polysaccharides; cellulose wool; cellulose cotton wool; natural polypeptides; synthetic polypeptides; fibrin; polylysine; plaitings, knitted fabrics, or woolen materials made of fibers; fibers comprising

resorbable polymers; cement pastes; acrylate cements; bonding sheets; fibrinogen-covered hyaluronic acid foil; and ceramic materials; and

the one or more biologically active factors comprises at least one biologically active factor selected from the group consisting of growth and differentiating factors, chemotactic factors, a cellular adhesion molecules, synthetic peptides, and components of an extracellular matrix.

Claim 36 (New) The method of claim 35, wherein the growth and differentiating factors are selected from the group consisting of factors from the TGF- β -superfamily, FGF-superfamily, PDGF, IGF, and EGF.

Claim 37 (New) The method of claim 35, wherein the chemotactic factors are selected from the group consisting of CDMP, CTGF, osteopontin, and NO-synthase blockers.

Claim 38 (New) The method of claim 35, wherein the cellular adhesion molecules are selected from the group consisting of integrins, CD44, selectins, and proteoglycans.

Claim 39 (New) The method of claim 35, wherein the synthetic peptides are selected from the group consisting of RGD sequences and cytokines.

Claim 40 (New) The method of claim 35, wherein the components of the extracellular matrix are selected from the group consisting of proteoglycans, fibronectins, and collagen.

Claim 41 (New) The method of claim 35, further comprising adding autologous and/or non-autologous cells to the structure.

Claim 42 (New) The method of claim 41, wherein the cells are selected from the group consisting of mesenchymal cells, progenitor cells, stem cells, and precursor cells.

Claim 43 (New) The method of claim 41, further comprising transfecting at least one of the one or more biologically active factors into the cells.

Claim 44 (New) The method of claim 43, wherein the cells are capable of releasing the biologically active factors when the implantable substrate is used.

Claim 45 (New) The method of claim 35, further comprising adding one or more components of the group consisting of enzymes or precursors thereof, inhibitors of enzymes, and anti-inflammatory additives to the structure.

Claim 46 (New) The method of claim 35, wherein the structure comprises substructures that are able to releasably store the one or more biologically active factors.

Claim 47 (New) The method of claim 46, wherein the substructure comprise layers, droplets, micro spheres, or surface coatings.

Claim 48 (New) The method of claim 35, further comprising fitting the structure with pins, hollow needles or an anchoring structure.

Claim 49 (New) The method of claim 48, wherein the pins, hollow needles or anchoring structure release cartilage-digesting enzymes when the implantable substrate is used.

Claim 50 (New) An implantable substrate produced from the method of claim 35.

Claim 51 (New) A method for the healing and/or protection of connective tissue comprising contacting the connective tissue in a subject with the implantable substrate of claim 50.

Claim 52 (New) The method of claim 51, wherein the connective tissue comprises cartilage.

Claim 53 (New) The method according to claim 52 further comprising creating connecting channels into the subchondral space of the cartilage before contacting the connective tissue with the substrate.

Claim 54 (New) The method of claim 53, further comprising fitting and attaching the substrate onto a location to be treated.

Claim 55 (New) The method of claim 54, wherein a fibrin or acylate cement is used to facilitate attachment of the substrate onto the surface of the joint.